DESCRIPTION

In the current era of complete genome sequencing, *Bioinformatics and Molecular Evolution* provides an up-to-date and comprehensive introduction to bioinformatics in the context of evolutionary biology.

This accessible text:

- provides a thorough examination of sequence analysis, biological databases, pattern recognition, and applications to genomics, microarrays, and proteomics

- emphasizes the theoretical and statistical methods used in bioinformatics programs in a way that is accessible to biological science students

- places bioinformatics in the context of evolutionary biology, including population genetics, molecular evolution, molecular phylogenetics, and their applications

- features end-of-chapter problems and self-tests to help students synthesize the materials and apply their understanding

- is accompanied by a dedicated website - www.blackwellpublishing.com/higgs - containing downloadable sequences, links to web resources, answers to self-test questions, and all artwork in downloadable format (artwork also available to instructors on CD-ROM).
This important textbook will equip readers with a thorough understanding of the quantitative methods used in the analysis of molecular evolution, and will be essential reading for advanced undergraduates, graduates, and researchers in molecular biology, genetics, genomics, computational biology, and bioinformatics courses.

⚠️ ABOUT THE AUTHOR

Paul Higgs is currently the Canada Research Chair in Biophysics at McMaster University. Previously, he was the course director of the Bioinformatics MSc at Manchester University. He has a PhD in statistical physics from the University of Cambridge. His current research interests include RNA structure and sequence evolution, molecular phylogenetics, theoretical evolutionary biology, and population genetics.

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📚 FEATURES

- Provides comprehensive coverage of bioinformatics, including sequence analysis, biological databases, pattern recognition, and applications to genomics, microarrays and proteomics

- Places bioinformatics in the context of evolutionary biology, giving detailed treatments of molecular evolution and molecular phylogenetics and discussing evolution at the whole-genome level

- Emphasizes the theoretical and statistical methods used in bioinformatics programs in a way that is accessible to biological science students

- Features end-of-chapter problems and periodic self-tests to help students synthesize and absorb the material
• Devoted website, www.blackwellpublishing.com/higgs, contains downloadable sequences, links to web resources, all answers to self-tests, and all art in JPEG and PowerPoint formats

For additional product details, please visit https://www.wiley.com/en-us